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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/351,597	07/12/1999	JOHN THOMAS BRASSIL	BRASSIL-3	9969

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EXAMINER

JEAN, FRANTZ B

ART UNIT	PAPER NUMBER
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2151

DATE MAILED: 02/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/351,597

Applicant(s)

BRASSIL, JOHN THOMAS

Examiner

Frantz B. Jean

Art Unit

2151

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-10 is/are rejected.
- 7) ☒ Claim(s) 11-14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This office action is in response to a change of address and a petition filed on 3/22/05.

Claims 2 and 3 have been cancelled. Claims 4-14 have been added. Claims 1 and 4-14 are pending in this office action.

The petition to revive the abandoned application has been granted. A letter was sent to the applicant on 09/09/05.

Response to Arguments

Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of Lyles et al (hereinafter "Lyles") US application Number 5,917,822.

Claim 1 is a Jepson claim, therefore, it contains admitted prior art and an improvement. AAPA teaches all the limitations of claim 1 except scaling a request by a factor of $1/\delta$. Lyles is directed to a method that allocates bandwidth fairly and dynamically in a network to accommodate both elastic and inelastic applications. The method comprises scaling a request by a factor (see col. 10 lines 21-29; col. 5 lines 35-

43). It would have been obvious to one of ordinary skill in the art at the time of the invention to have combined Lyles with AAPA because it would have facilitated allocating transmission bandwidth in a shared-media packet-switched (see Lyles col. 1 lines 10-14). Furthermore, AAPA and Lyles do not explicitly teach a factor $1/\delta$. It would have been apparent to one of ordinary skill in the art at the time of the invention to incorporate this feature into AAPA and Lyles in order to reduce latency in allocating bandwidth to users.

Claims 4-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lyles et al (hereinafter "Lyles") US application Number 5,917,822.

As per claim 4, Lyles teaches an apparatus for use with a head-end node (105), which allocates time slots on a channel to users (see abstract), comprising: a user node, which utilizes the channel, and holds a queue of messages (col. 1 lines 49-64; col. 7 lines 7-12);

Means at the user node for ascertaining a number N of time slots required to handle the queue (col. 11 line 19 to col. 12 line 34). Lyles teaches a virtual clock algorithm that may be used to generate a sequence of upstream slot/transmission assignment grants (col. 6 lines 60 et seq). However, Lyles does not explicitly teach requesting the head-end node to allocate to the user node a fraction of the N time slots. It would have been apparent to one of ordinary skill in the art at the of the invention to incorporate the feature of requesting head-end node to allocate to the user a fraction of the N time slots in order to eliminate latency in transmitting messages/packets.

As per claim 5, Lyles does not teach a fraction that equals to $1/\text{latency}$. It would have been apparent to one of ordinary skill in the art at the time of the invention to incorporate this feature into Lyles in order to reduce latency in allocating bandwidth and/or transferring messages to users.

As per claim 6, Lyles teaches in a network wherein nodes request allocations of time slots on a channel from an allocator ... comprising: ascertaining number N of time slots required to clear a queue standing at the node (col. 11 line 19 to col. 12 line 34). However Lyles does not teach a first and a second request to allocate fewer than N time slots from the allocator. It would have been apparent to one of ordinary skill in the art at the time of the invention to incorporate the feature of allocate fewer than N time slots from the allocator in order to eliminate latency in transmitting messages/packets.

As per claims 7-8, Lyles does not teach the steps of asking for the same or different number of slots. It would have been apparent to the skill artisan to incorporate this feature in Lyles because it reflects the user's choice and preferences in order to reduce latency in data transfer and/or bandwidth allocation.

As per claim 9-10, they contain the same limitations as recited in claims 1 and 5 above, except a slight difference in the numerator where 1 was replaced by N and S. However, although different, the end result is the same. Therefore, they are rejected under the same rationale.

Allowable Subject Matter

Claims 11-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art fails to teach the combination of claim 1 and the following: each user determines two amounts, namely, a fraction of a queue held by the user and number of arrivals of messages at the user at the time of request, and request bandwidth equal to one of the amounts.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Momona (6,434,117) teaches increasing and decreasing of the allocated bandwidth (col. 11 lines 45-55).

Sakoda et al. (6,351,461) and Suzuki (5,995,515) teach time slot and bandwidth allocations.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frantz B. Jean whose telephone number is 571-272-3937. The examiner can normally be reached on 8:30-6:00 M-f.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on 571 272 3939. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2151

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Frantz Jean



FRANTZ B. JEAN
PRIMARY EXAMINER